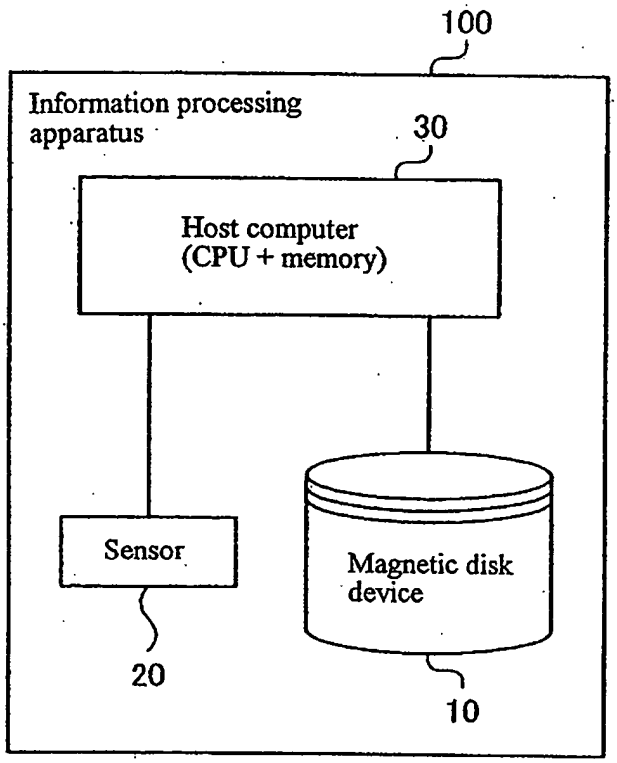
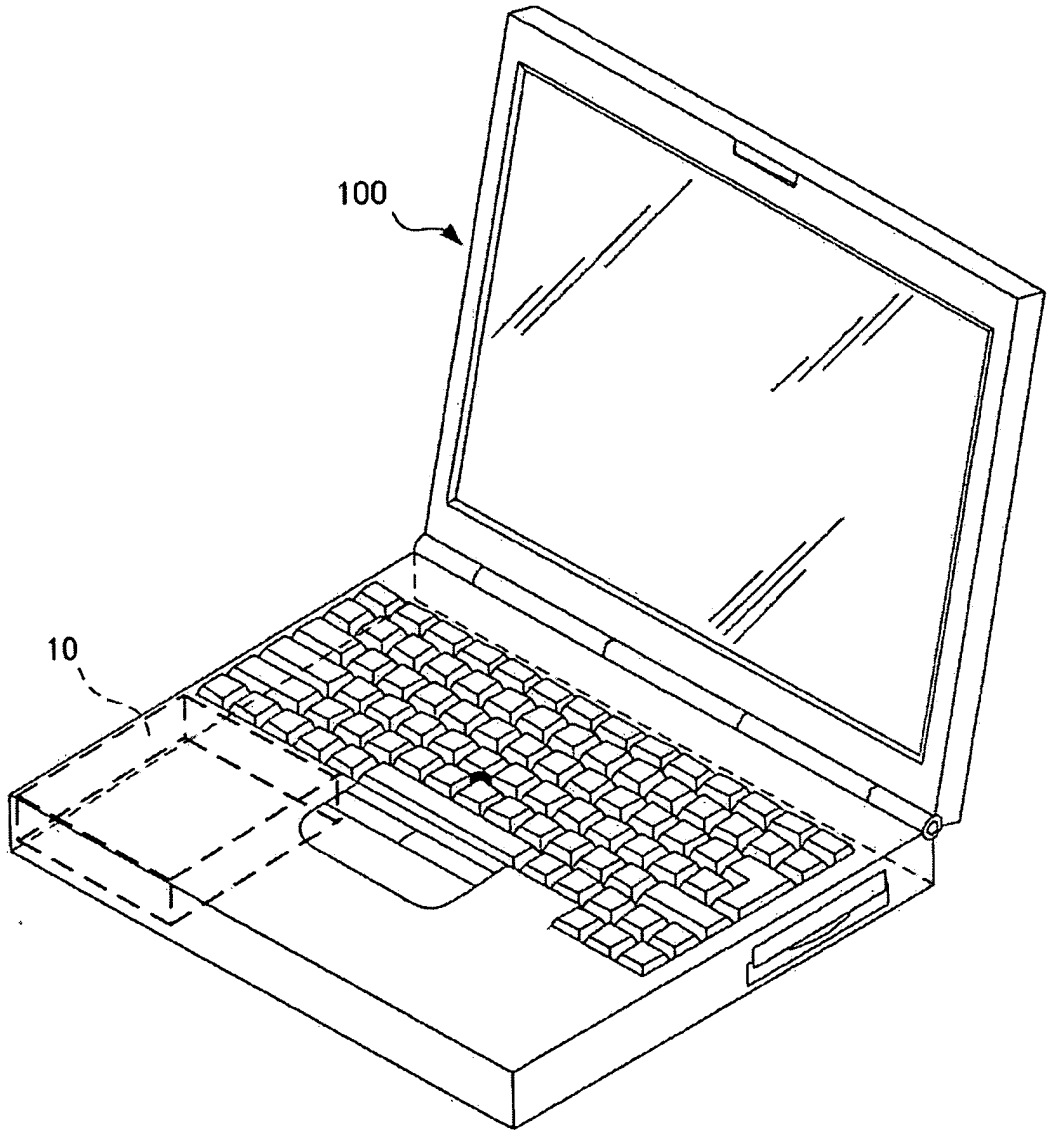
[Document type] Drawing

[Figure 1] (1/14)

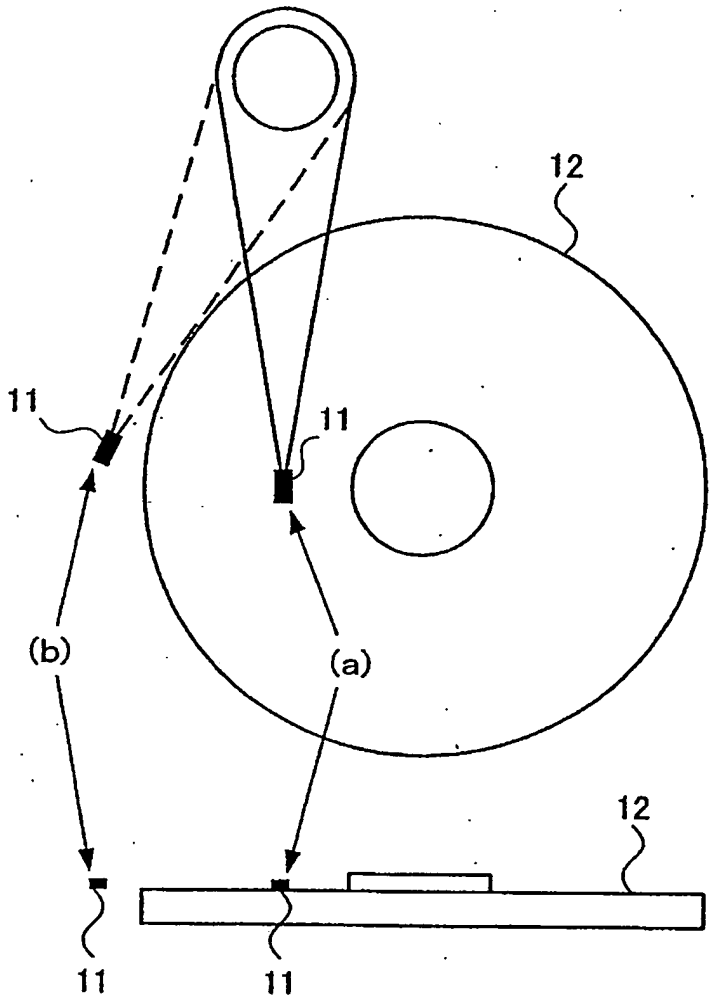


【図２】

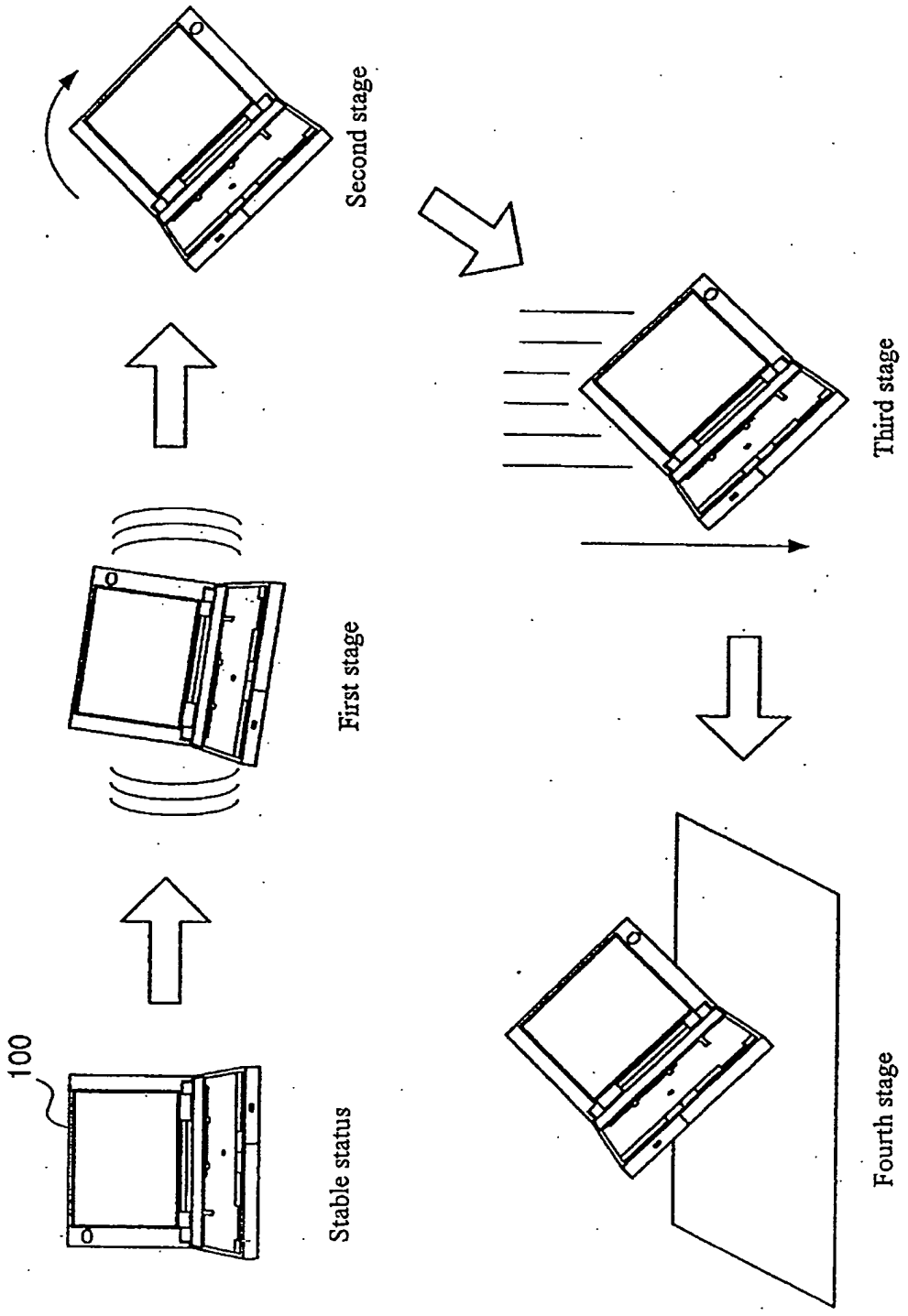
[Figure 2] (2/14)



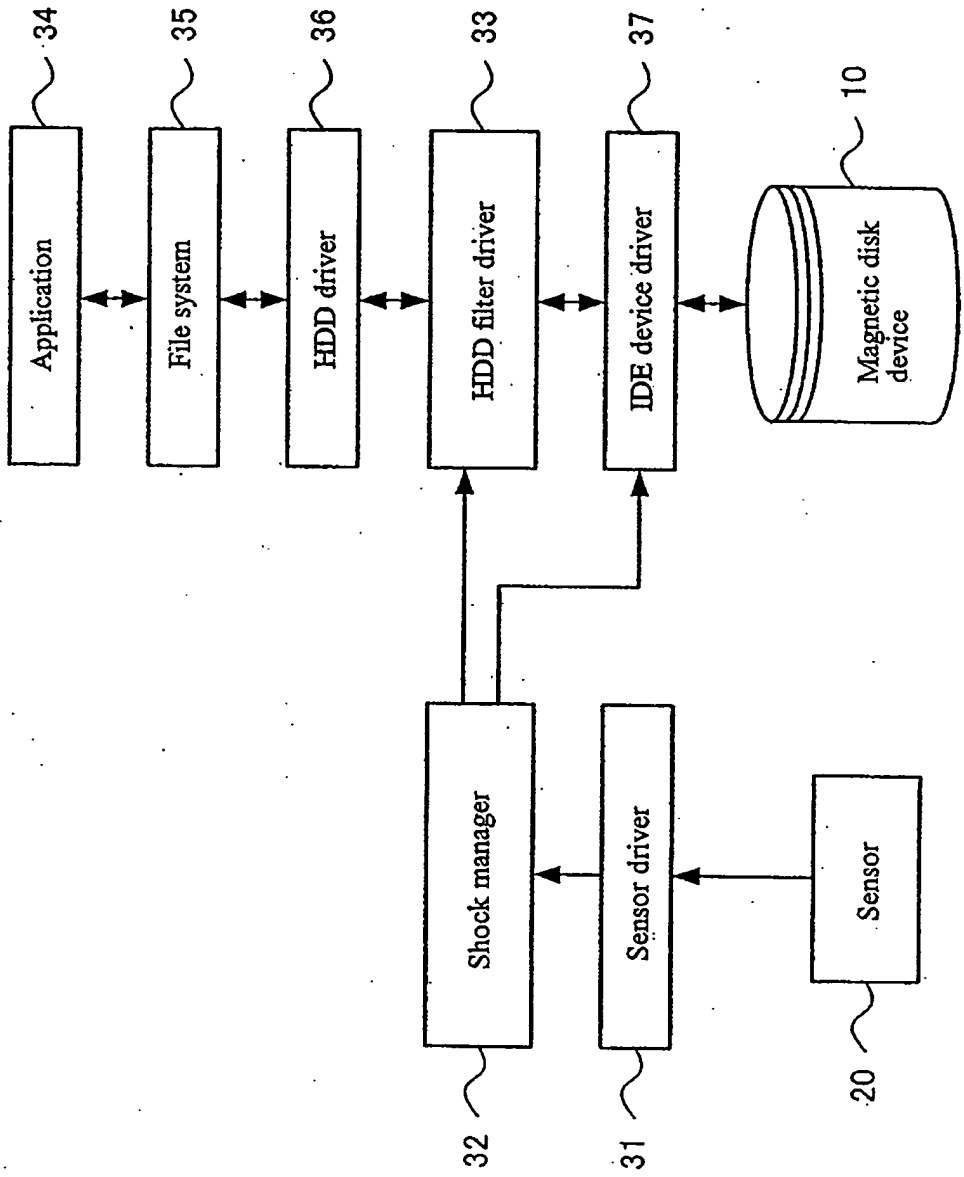
[Figure 3] (3/14)



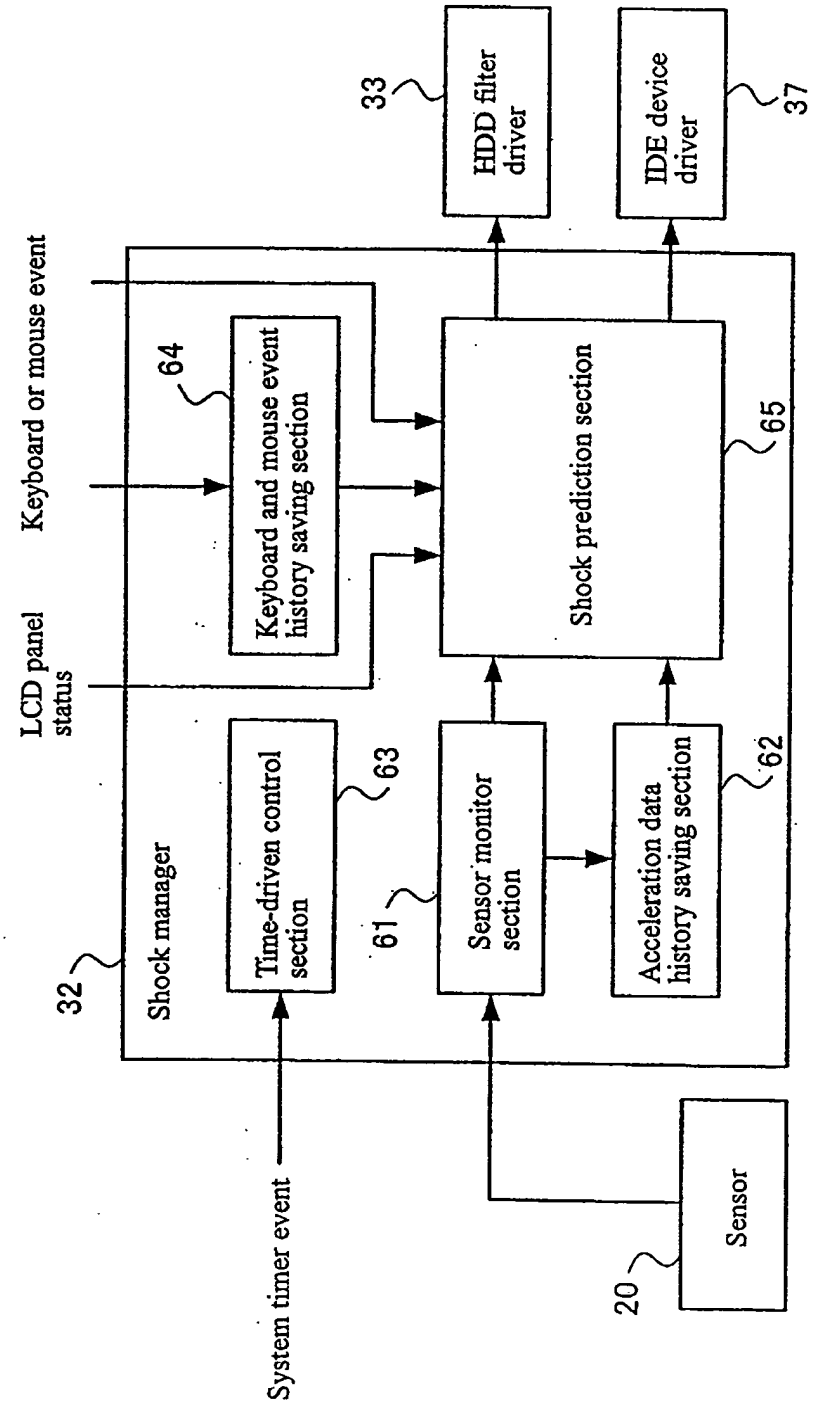
[Figure 4] (4/14)


100
Stable status
First stage
Second stage
Third stage
Fourth stage

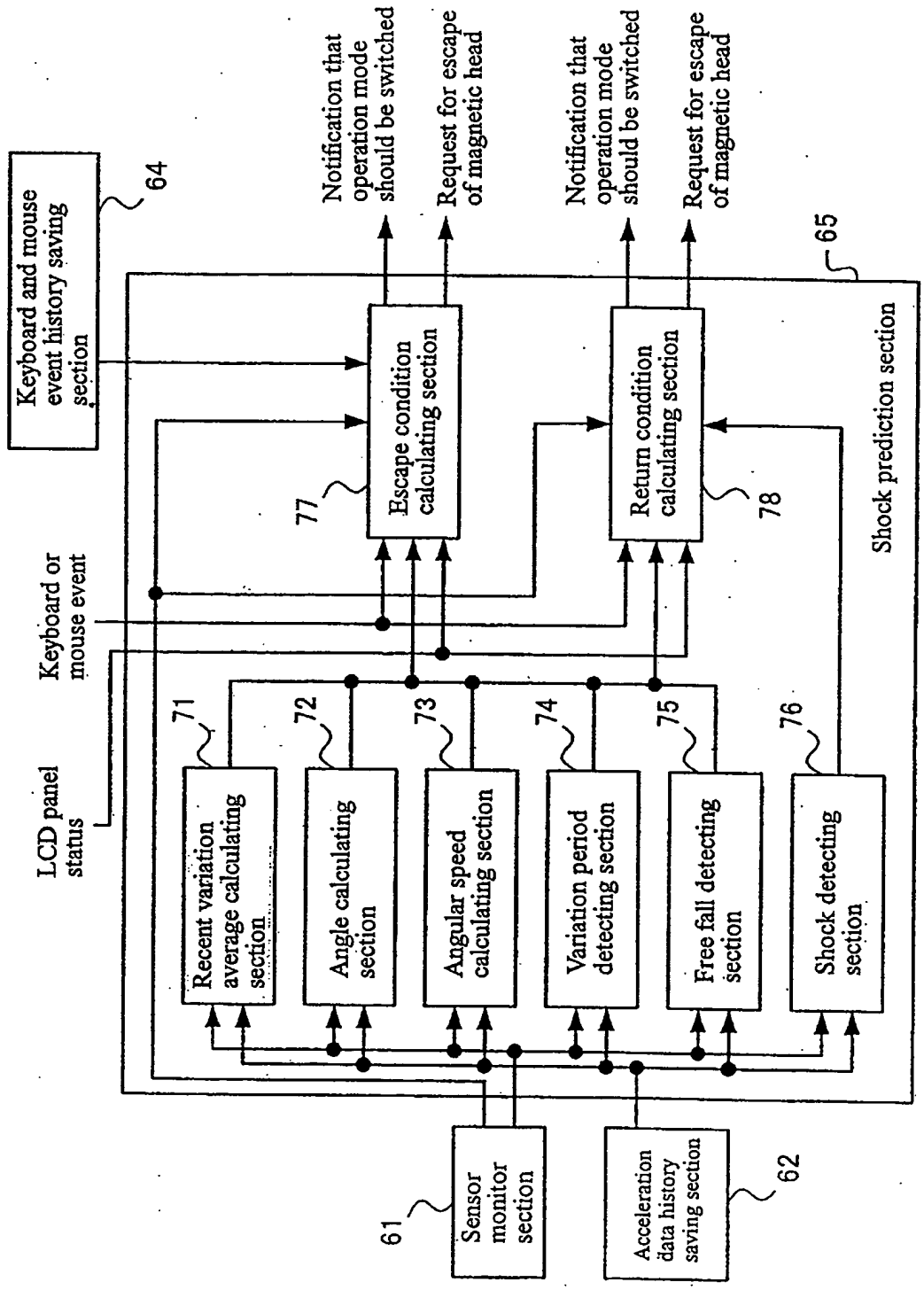
[Figure 5] (5/14)


34
35
36
33
37
10
Application
File system
HDD driver
HDD filter driver
IDE device driver
Magnetic disk device
Shock manager
Sensor driver
Sensor
32
31
20

[Figure 6] (6/14)


HDD filter driver
33
IDE device driver
37
Keyboard or mouse event
64
Keyboard and mouse event history saving section
Shock prediction section
65
LCD panel status
Shock manager
32
Time-driven control section
63
Sensor monitor section
61
Acceleration data history saving section
62
System timer event
Sensor
20

[Figure 7] (7/14)


Keyboard and mouse event history saving section
64
Notification that operation mode should be switched
Request for escape of magnetic head
Notification that operation mode should be switched
Request for escape of magnetic head
65
Shock prediction section
Escape condition calculating section
77
Return condition calculating section
78
Keyboard or mouse event
LCD panel status
71
Recent variation average calculating section
72
Angle calculating section
73
Angular speed calculating section
74
Variation period detecting section
75
Free fall detecting section
76
Shock detecting section
61
Sensor monitor section
Acceleration data history saving section
62

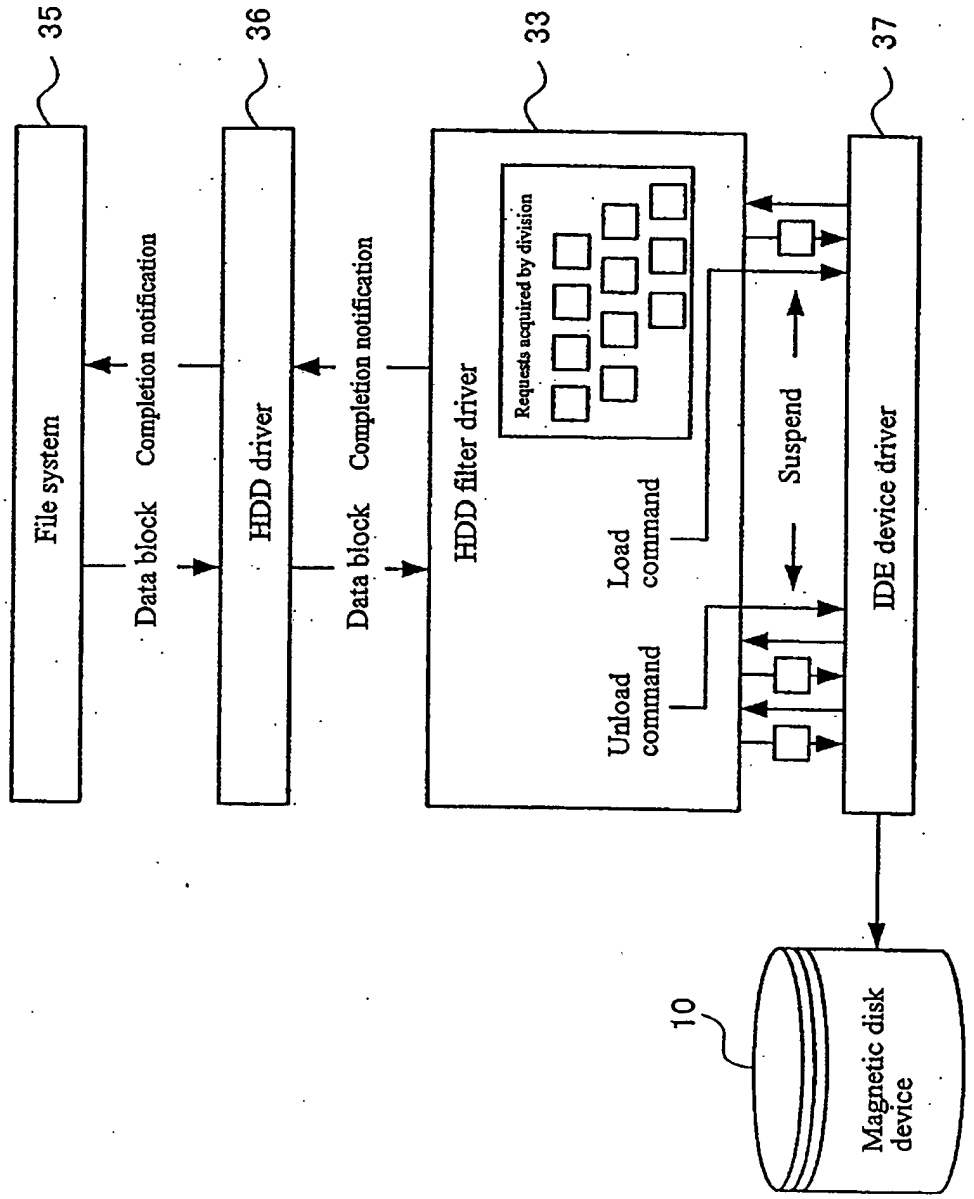
[Figure 8] (8/14)

```
If (ω > Th) then
  Instruct magnetic head to escape on the basis
  of a shock prediction
  Start escape timer
else if (ω > Th/2) then
  Notify that operation mode has shifted to high
  risk mode
  Start high risk mode timer
Endif
```

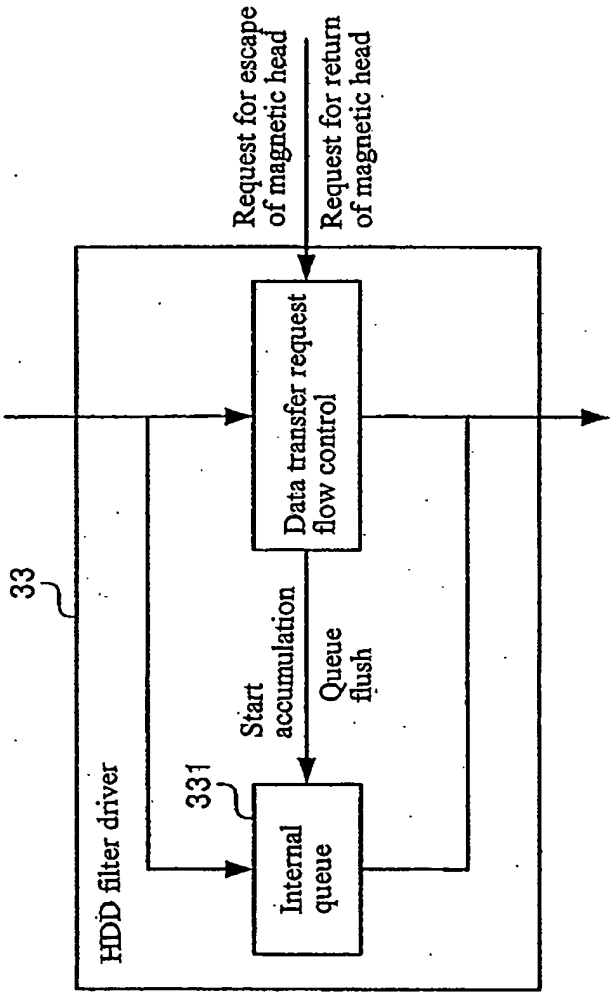
[Figure 9]

```
If    (Escape timer times out)          then
  If (ω < Th/4) then
    Instruct magnetic head to return
  Endif
Endif
If    (High risk mode timer times out)          then
  If (ω < Th/8) then
    Notify that operation mode has shifted to normal mode
  Endif
Endif
```

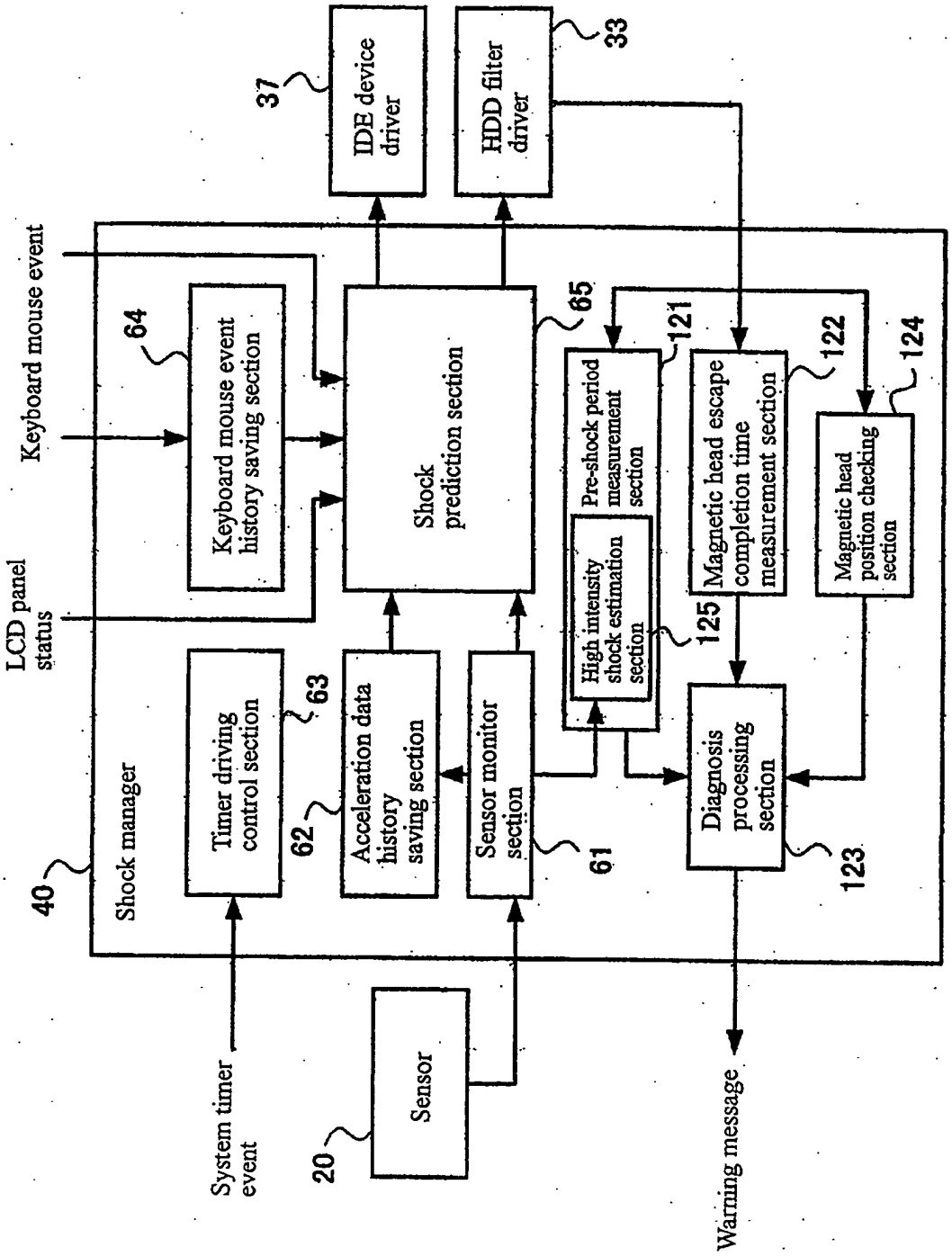
[Figure 10] (9/14)



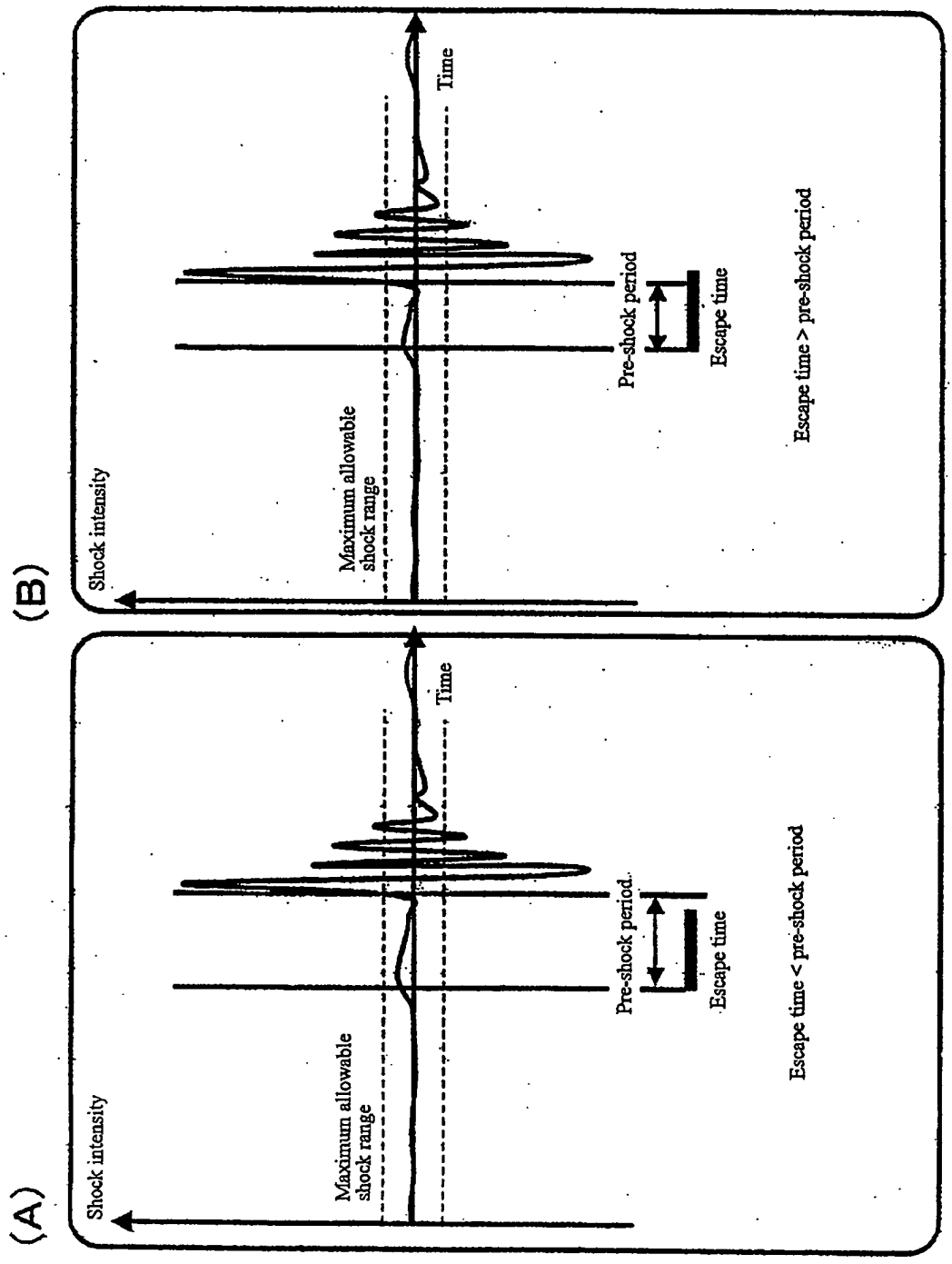
[Figure 11] (10/14)



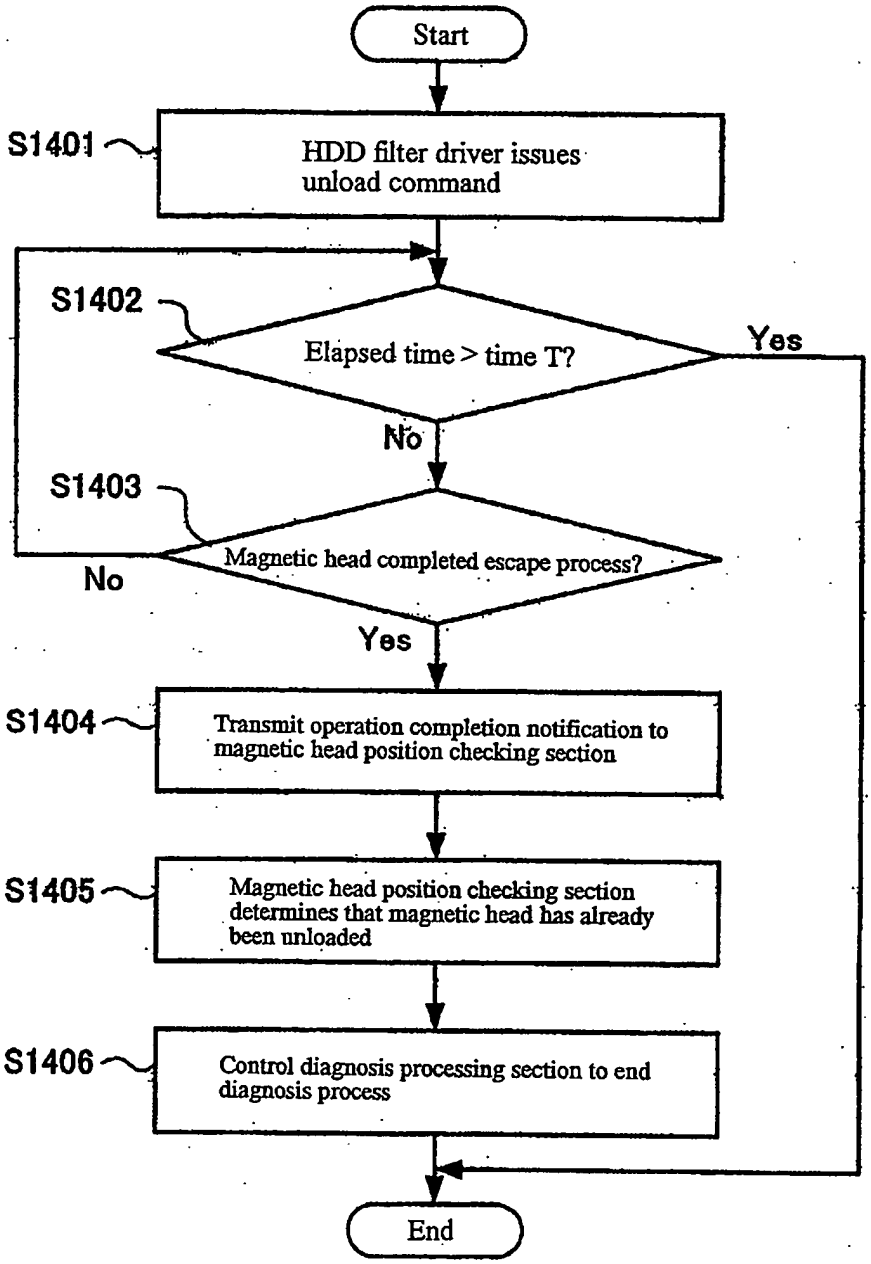
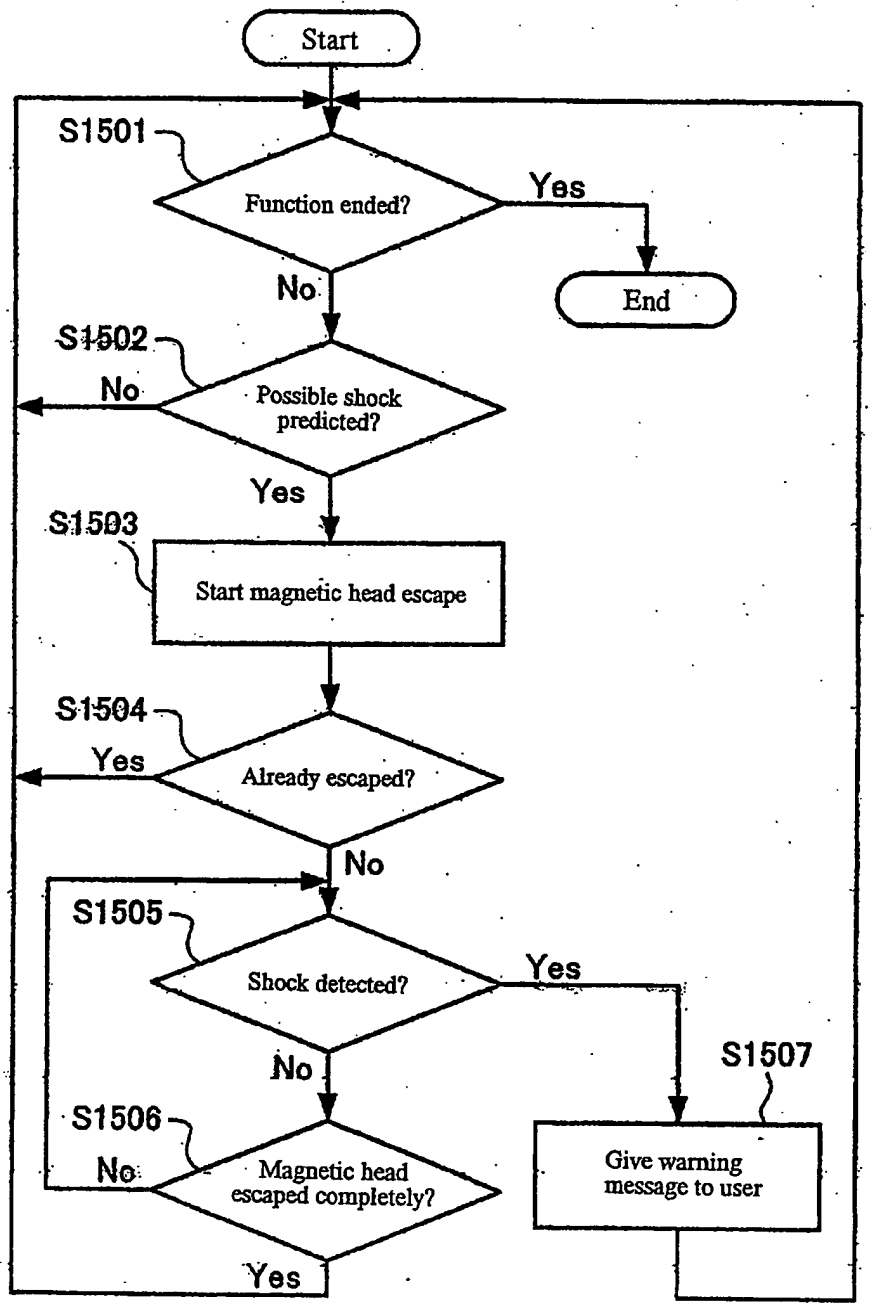
[Figure 12] (11/14)



[Figure 13] (12/14)



[Figure 14] (13/14)



[Figure 15] (14/14)